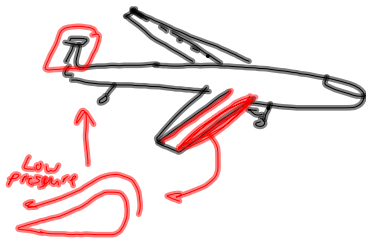


## Bellringer

→ Are dinosaurs more related to birds or reptiles? Explain.

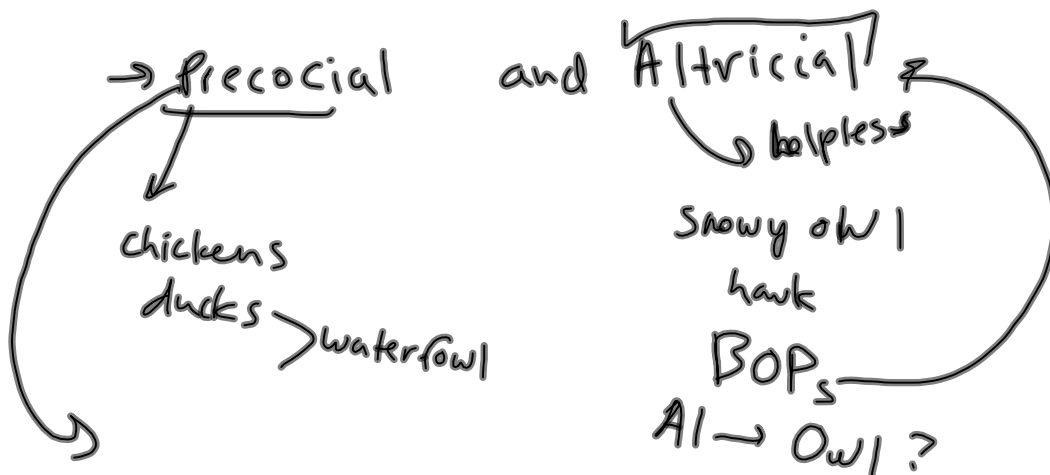
### "Archaeopteryx"

- What are some of the defining characteristics of mammals? Explain.  
 hair, warm blooded, ~~live babies~~, mammary glands.
- How do birds fly? What is lift? Explain how lift works.



Mar 28-11:23 AM

## Bellringer




Apr 2-1:09 PM

## Bellringer

- What is a chromosome map?  
location of genes on a chromosome
- Who was Gregor Mendel and how did he change the idea of heredity?  
9:3:3:1
- How is Mitosis different from Meiosis? Explain.  
 → diploid → haploid  
 → genetically identical → diverse

Apr 2-2:07 PM

## Bellringer

- What is the difference between an altricial and precocial chick? Provide an example of each.  
 duck → born helpless  
 → showy owl
- What is preening? How do birds use preening?  
oil on the feathers
- Explain the process of lift. What feathers do birds use to establish lift?  

- What are a few characteristics of all birds? Explain.  
 air-sac, feather, wings, beak, endothermic  
 amniotic egg

Apr 1-10:41 AM

# 17.1 Review

Grade: 7<sup>th</sup>  
Subject: Life Science  
Date:

May 10-3:15 PM

# 17.1

Grade: «grade»  
Subject: «subject»  
Date: «date»

Apr 1-1:28 PM

- 1 The process of shedding feathers, which are replaced by new feather is called \_\_\_\_\_.

molting

May 10-3:16 PM

- 2 Birds need a rigid, light skeleton to be able to fly.

True

False

May 10-3:17 PM

3 Gizzards are a part of a bird that helps them digest food.

True

False

May 10-3:17 PM

4 The act of grooming and maintaining feathers is called

\_\_\_\_\_.

preening

May 10-3:18 PM

5 The upward force on an object that moves in a fluid is known as lift.

May 10-3:19 PM

6 Birds perform \_\_\_\_\_, which means they sit on and cover eggs to keep them warm until they hatch.

brooding

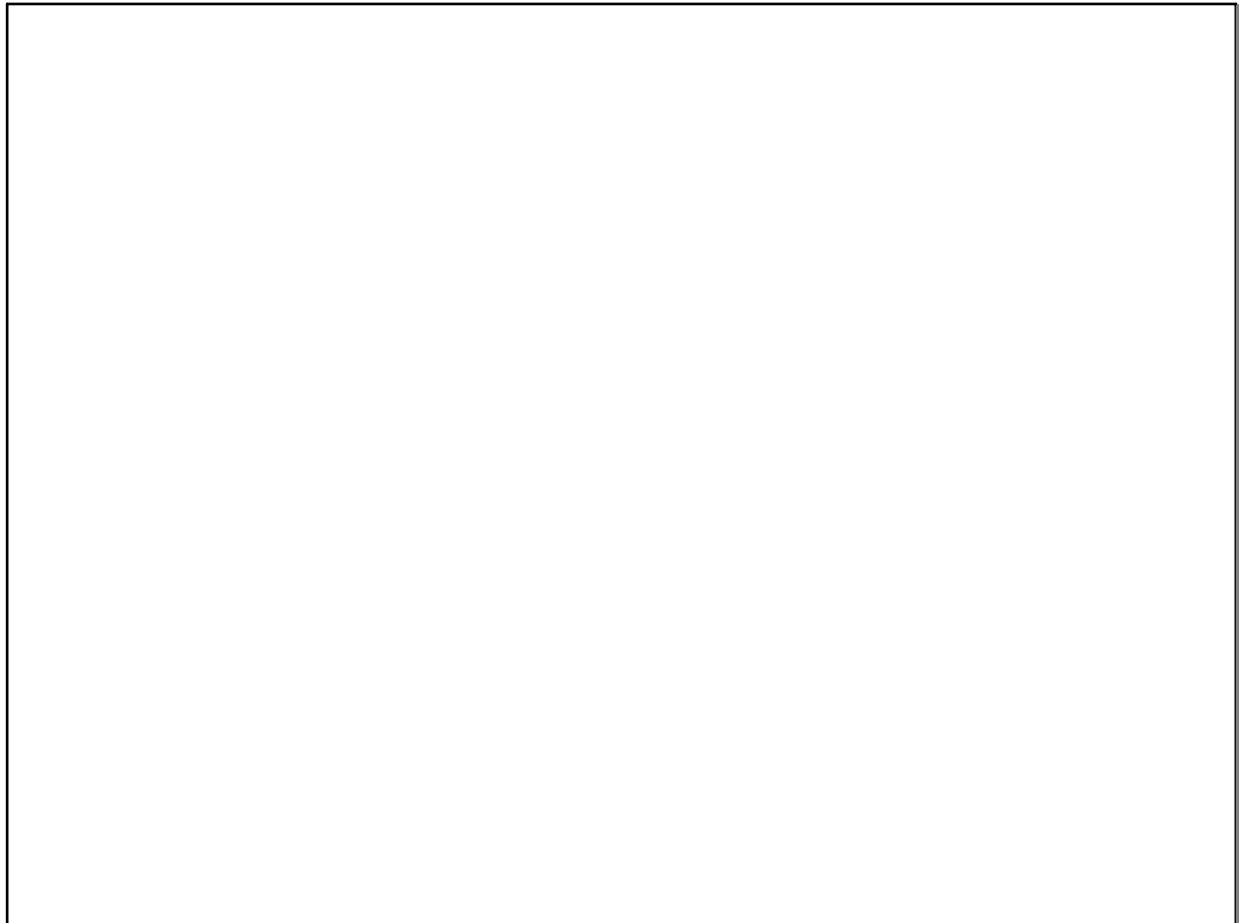
May 10-3:19 PM

7 Birds that are bald and helpless after hatching are called \_\_\_\_\_ chicks.

May 10-3:20 PM

8 Birds that are active shortly after hatching are called \_\_\_\_\_ chicks.

May 10-3:20 PM



May 14-1:26 PM

## 17.2 Review

Grade: 7<sup>th</sup>  
Subject: Life Science  
Date:

May 14-9:32 AM



1 Scientists have grouped all birds into 28 different orders. I am from the group that makes up the largest order. I am a \_\_\_\_\_.

May 14-12:58 PM

2 I do not have a large keel to support flight muscles. Instead of flying, I have learned to run fast or swim. I am a \_\_\_\_\_.

May 14-12:59 PM

3 I have special adaptations for resting on branches. If I fall asleep on a branch, I will not fall off. I have short, sturdy feathers. I am a \_\_\_\_\_.

May 14-1:02 PM

4 I hunt and eat other vertebrates. I have sharp claws and a sharp, curved, beak. I also have very good eyesight. I am a \_\_\_\_\_.

May 14-1:03 PM

- 5 I have webbed feet or long legs. I can find my food in water or on land. I eat plants, invertebrates, or fish. I am a \_\_\_\_\_.

May 14-1:04 PM

### 17.3 Characteristics of Mammals

- I. First Mammals (225 million years ago)
- A. Therapsids - organisms (reptiles) that existed 280 million years ago that had characteristics of both mammals + reptiles

- B. First mammals = small, endothermic, exploded when dinosaurs died

#### II Common characteristics

- A. Making Milk - all mammals have mammary glands

1. mammary glands - structures that produce milk; only adult females make milk

B. Breathing Air

1. Need  $O_2$  for cellular respiration to occur (getting energy from food)
2. Diaphragm - large muscle that helps bring air into lungs

May 15-1:46 PM

- C. Endothermic - maintain internal body through the ingestion of food
- D. Hair - helps mammals retain body heat; only animals w/ hair
  - 1. Thick coats of hair = fur

May 15-2:16 PM

## 17.3 Review

Grade: 7<sup>th</sup>  
Subject: Life Science  
Date:

May 14-4:20 PM

# 17.3

Grade: «grade»  
Subject: «subject»  
Date: «date»

Apr 4-12:30 PM

1 In a female mammal, this gland provides milk for the young.

- A diaphragm
- B endotherm
- ☒ C mammary
- D protein

May 14-4:21 PM

2 The large muscle that helps bring air into a mammal's lungs is called the ...

diaphragm

May 14-4:22 PM

3 What advantage did early mammals have over reptiles?

- A mammals depended on their surroundings to keep warm
- B Mammals were larger than most reptiles
- C mammals looked for food only during the day
- ☒ D mammals had a constant body temperature, so they could hunt at night

May 14-4:23 PM

4 Which of the following characteristics are unique to reproduction in mammals?

- ☒ A reproduce sexually, have mammary glands; care for young until grown
- ☐ B reproduce asexually; care for young for one month
- ☐ C reproduce asexually; have mammary glands, care for young for life
- ☐ D reproduce sexually; do not have mammary glands; care for young until the next birth

May 14-4:25 PM

5 Mammals are the only animals that have which of the following characteristics?

- ☐ A webbed feet, feathers, and long legs
- ☒ B specialized teeth, large brains, and hair
- ☐ C lungs, large brains, and hair
- ☐ D a light skeleton, large keel, and specialized teeth

May 14-4:26 PM

6 Animals whose body temperature stays constant because of internal chemical changes are....

A reptiles

**B endotherms**

C ectotherms

D amphibians

May 14-4:27 PM

### Bellringer

→ What are a few characteristics of mammals?

milk, hair, endothermic, breathing air, vertebrae, specialized teeth, large brain

→ Give an example of a [precocial] and [altricial] chick.

↓  
owl

→ What is a monotreme?

Platypus, echidna

Apr 8-9:45 AM



# 17.4 Review

Grade: 7<sup>th</sup>  
Subject: Life Science  
Date:

May 15-1:47 PM

- 1 \_\_\_\_\_ is the type of mammal that lays eggs in thick, leathery shells.

May 17-11:30 AM

2 \_\_\_\_\_ is the type of mammal that gives birth to live young early in their development. The young then grow in the mother's pouch.

May 17-11:30 AM

3 An echidna is a type of...

- A marsupial
- B monotreme

May 17-11:31 AM

4 An opossum is a type of ...

- A marsupial
- B monotreme

May 17-11:31 AM

5 A koala is a type of...

- A marsupial
- B monotreme

May 17-11:31 AM

6 A platypus is a type of...

- A marsupial
- B monotreme

May 17-11:32 AM

7 A wallaby is a type of ...

- A marsupial
- B monotreme

May 17-11:32 AM

8 What is unique about the way in which marsupials are born?

- A they are born many months after fertilization
- B they are born at a late stage of development
- C they continue their development in a mother's pouch
- D their mothers lay eggs in tunnels near rivers

May 17-11:33 AM

Bellringer

T = tall  
t = short  
W = White  
w = tan

$TTWw \times ttww$

	TW	Tw	tW	tw
TW	TTWW	TTWw	TtWW	TtWw
Tw	TTWw	TTww	TtWw	Ttww
tW	TtWW	TtWw	ttWW	ttWw
tw	TtWw	Ttww	ttWw	ttww

8/16 = Tall White  
8/16 = tall tan  
50% Tall White  
50% Tall tan

Expected  
100 92 Tall tan  
100 108 Tall White  
200

Observed  
100 92 Tall tan  
100 108 Tall White  
200

$h = \# \text{ of possible phenotypes}$   
degrees of freedom =  $n - 1$   
1

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

$$\frac{(92 - 100)^2}{100} + \frac{(108 - 100)^2}{100} = \frac{64}{100} + \frac{64}{100} = 1.28$$

$$\frac{(32)^2}{100} + \frac{(32)^2}{100} = 20.48$$

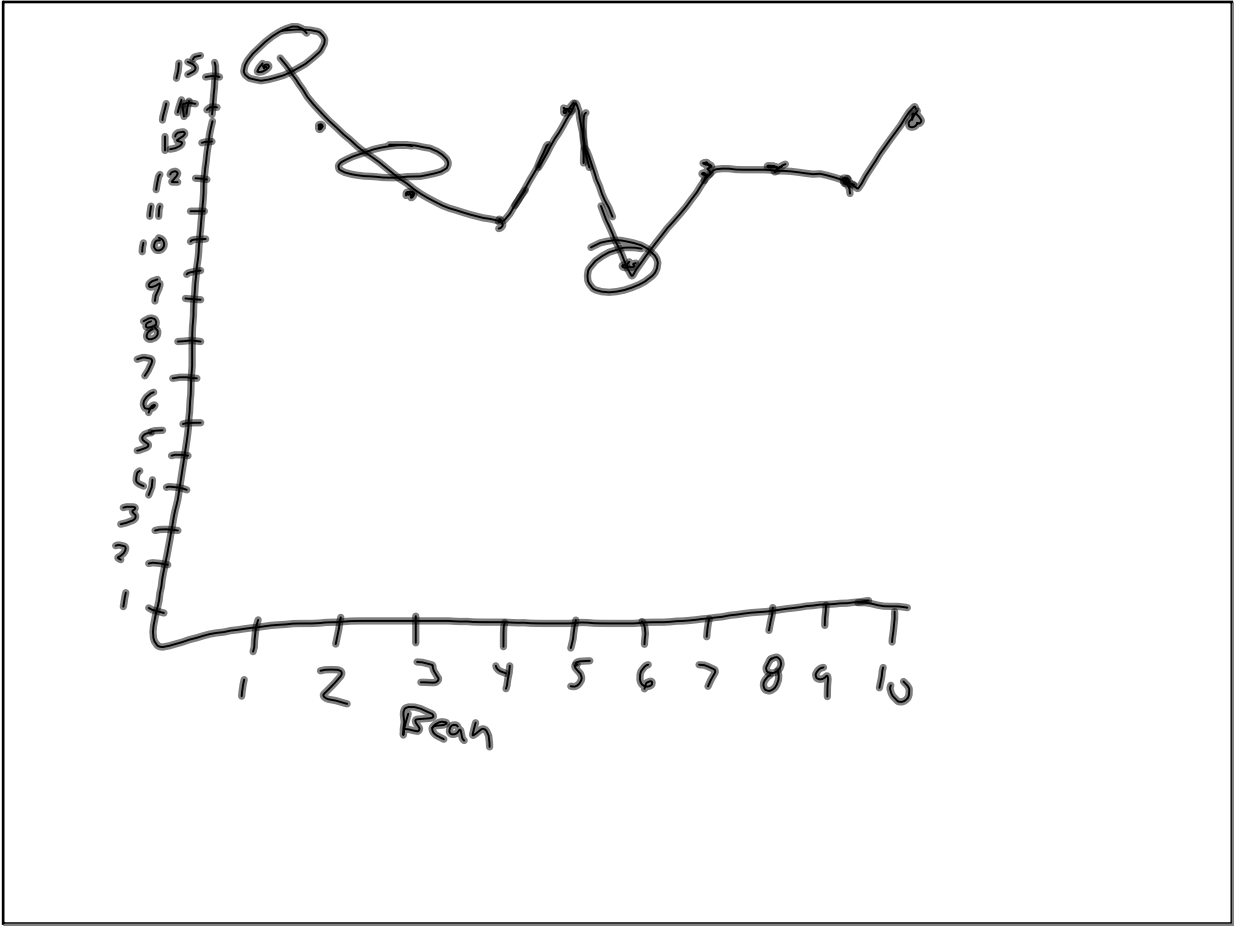
chi-square statistic

Accept  $< 3.84$  Reject Null

There is no significant difference between observed and expected values

Null hypothesis

Mar 27-10:18 AM



Mar 27-2:19 PM